

IN THE CLAIMS:

1. (Currently Amended): A method of performing a bulk read ~~from a socket receive~~ buffer, comprising:
 - creating a socket structure for a socket associated with a logical port, wherein the socket structure contains a socket receive buffer;
 - initiating, by a user associated with the logical port, a bulk read function having a bulk read size;
 - storing the bulk read size in a field in the socket structure;
 - determining if an amount of data in the socket receive buffer is equal to or greater than the bulk read size; and
 - activating the bulk read function only when there is an amount of data in the socket receive buffer equal to or greater than the bulk read size.
2. (Currently Amended): The method of claim 1, wherein the ~~bulk read size~~ user is stored in a field in the socket structure an application associated with the logical port.
3. (Currently Amended): The method of claim 1, wherein the bulk read size is a size identified by ~~[[a]]~~ the user.
4. (Original): The method of claim 1, wherein the step of activating the bulk read function only when there is an amount of data in the socket receive buffer equal to or greater than the bulk read size is performed in response to setting of a flag in the socket structure.
5. (Original): The method of claim 4, further comprising:
 - checking a state of the flag in the socket structure; and
 - determining if an amount of data stored in the socket receive buffer is less than the bulk read size, if the flag is set.
6. (Original): The method of claim 5, wherein if the amount of data stored in the socket receive buffer is less than the bulk read size, the bulk read function is not activated.

7. (Original): The method of claim 6, further comprising:

receiving a Transport Control Protocol (TCP) segment from a sending device, wherein the steps of checking the state of the flag in the socket structure and determining if an amount of data in the socket receive buffer is less than the bulk read size are performed in response to receiving the TCP segment.

8. (Original): The method of claim 7, wherein if the amount of data stored in the socket receive buffer is less than the bulk read size, an acknowledgment is sent to the sending device for every alternate TCP segment received.

9. (Original): The method of claim 5, wherein the steps of checking a state of the flag, determining if an amount of data stored in the socket receive buffer is less than the bulk read size, and activating the bulk read function are performed in a Transport Control Protocol (TCP) layer.

10. (Original): The method of claim 5, further comprising:

informing a sending device that a full window size of data is available in the socket receive buffer, if the flag is set and the amount of data stored in the socket receive buffer is less than the bulk read size.

11. (Original): The method of claim 4, wherein activating the bulk read function includes:

copying an amount of data equal to the bulk read size from the socket receive buffer to an application buffer; and
resetting the flag.

12. (Original): The method of claim 11, wherein activating the bulk read function further includes:

determining if there is data stored in the socket receive buffer after copying the amount of data equal to the bulk read size from the socket receive buffer to the application buffer; and

sending a window update to a sending device if there is data stored in the socket receive buffer after the copying.

13. (Currently Amended): An apparatus for performing a bulk read ~~from a socket receive buffer~~, comprising:

means for creating a socket structure for a socket associated with a logical port,
wherein the socket structure contains a socket receive buffer;

means for initiating, by a user associated with the logical port, a bulk read
function having a bulk read size;

means for storing the bulk read size in a field in the socket structure;

means for determining if an amount of data in the socket receive buffer is equal to
or greater than the bulk read size; and

means for activating the bulk read function only when there is an amount of data
in the socket receive buffer equal to or greater than the bulk read size.

14. (Currently Amended): The apparatus of claim 13, wherein the ~~bulk read size~~ user is
stored in a field in the socket structure an application associated with the logical port.

15. (Currently Amended): The apparatus of claim 13, wherein the bulk read size is a size
identified by ~~[[a]]~~ the user.

16. (Original): The apparatus of claim 13, wherein the means for activating the bulk read
function only when there is an amount of data in the socket receive buffer equal to or
greater than the bulk read size operates in response to setting of a flag in the socket
structure.

17. (Original): The apparatus of claim 16, further comprising:

means for checking a state of the flag in the socket structure; and

means for determining if an amount of data stored in the socket receive buffer is
less than the bulk read size, if the flag is set.

18. (Original): The apparatus of claim 17, wherein if the amount of data stored in the
socket receive buffer is less than the bulk read size, the bulk read function is not activated
by the means for activating the bulk read function.

19. (Original): The apparatus of claim 18, further comprising:

means for receiving a Transport Control Protocol (TCP) segment from a sending device, wherein the means for checking the state of the flag in the socket structure and means for determining if an amount of data in the socket receive buffer is less than the bulk read size operate in response to receiving the TCP segment.

20. (Original): The apparatus of claim 19, further comprising a means for sending an acknowledgment to the sending device for every alternate TCP segment received, if the amount of data stored in the socket receive buffer is less than the bulk read size.

21. (Original): The method of claim 17, wherein the means for checking a state of the flag, means for determining if an amount of data stored in the socket receive buffer is less than the bulk read size, and means for activating the bulk read function are part of a Transport Control Protocol (TCP) layer.

22. (Original): The apparatus of claim 17, further comprising:

means for informing a sending device that a full window size of data is available in the socket receive buffer, if the flag is set and the amount of data stored in the socket receive buffer is less than the bulk read size.

23. (Original): The apparatus of claim 16, wherein the means for activating the bulk read function includes:

means for copying an amount of data equal to the bulk read size from the socket receive buffer to an application buffer; and

means for resetting the flag.

24. (Original): The apparatus of claim 23, wherein the means for activating the bulk read function further includes:

means for determining if there is data stored in the socket receive buffer after copying the amount of data equal to the bulk read size from the socket receive buffer to the application buffer; and

means for sending a window update to a sending device if there is data stored in the socket receive buffer after the copying.

25. (Currently Amended): A computer program product in a computer readable medium for performing a bulk read ~~from a socket receive buffer~~, comprising:

instructions for creating a socket structure for a socket associated with a logical port, wherein the socket structure contains a socket receive buffer;

~~first~~ instructions for initiating, by a user associated with the logical port, a bulk read function having a bulk read size;

instructions for storing the bulk read size in a field in the socket structure;

~~second~~ instructions for determining if an amount of data in the socket receive buffer is equal to or greater than the bulk read size; and

~~third~~ instructions for activating the bulk read function only when there is an amount of data in the socket receive buffer equal to or greater than the bulk read size.

26. (Currently Amended): The computer program product of claim 25, wherein the ~~bulk read size~~ user is stored in a field in the socket structure an application associated with the logical port.

27. (Currently Amended): The computer program product of claim 25, wherein the bulk read size is a size identified by ~~[[a]]~~ the user.

28. (Currently Amended): The computer program product of claim 25, wherein the ~~third~~ instructions for activating the bulk read function only when there is an amount of data in the socket receive buffer equal to or greater than the bulk read size are executed in response to setting of a flag in the socket structure.

29. (Currently Amended): The computer program product of claim 28, further comprising:

~~fourth~~ instructions for checking a state of the flag in the socket structure; and

~~fifth~~ instructions for determining if an amount of data stored in the socket receive buffer is less than the bulk read size, if the flag is set.

30. (Currently Amended): The computer program product of claim 29, wherein if the amount of data stored in the socket receive buffer is less than the bulk read size, the ~~third~~ instructions are not executed.

31. (Currently Amended): The computer program product of claim 30, further comprising:

~~sixth~~ instructions for receiving a Transport Control Protocol (TCP) segment from a sending device, wherein the ~~fourth~~ instructions for checking the state of the flag in the socket structure and ~~fifth~~ instructions for determining if an amount of data in the socket receive buffer is less than the bulk read size are executed in response to receiving the TCP segment.

32. (Currently Amended): The computer program product of claim 31, further comprising ~~seventh~~ instructions for sending an acknowledgment to the sending device for every alternate TCP segment received, if the amount of data stored in the socket receive buffer is less than the bulk read size.

33. (Currently Amended): The computer program product of claim 29, wherein the ~~fifth~~ instructions for checking a state of the flag, ~~seventh~~ instructions for determining if an amount of data stored in the socket receive buffer is less than the bulk read size, and ~~third~~ instructions for activating the bulk read function are executed in a Transport Control Protocol (TCP) layer.

34. (Currently Amended): The computer program product of claim 29, further comprising:

~~sixth~~ instructions for informing a sending device that a full window size of data is available in the socket receive buffer, if the flag is set and the amount of data stored in the socket receive buffer is less than the bulk read size.

35. (Currently Amended): The computer program product of claim ~~[[29]]~~ 28, wherein the ~~third~~ instructions for activating the bulk read function include:

instructions for copying an amount of data equal to the bulk read size from the socket receive buffer to an application buffer; and

instructions for resetting the flag.

36. (Currently Amended): The computer program product of claim 35, wherein the ~~third~~ instructions for activating the bulk read function further include:

instructions for determining if there is data stored in the socket receive buffer after copying the amount of data equal to the bulk read size from the socket receive buffer to the application buffer; and

instructions for sending a window update to a sending device if there is data stored in the socket receive buffer after the copying.

37. (Original): The method of claim 1, further comprising placing the bulk read function in an inactive state if an amount of data in the socket receive buffer is not equal to or greater than the bulk read size.

38. (Original): The apparatus of claim 13, further comprising means for placing the bulk read function in an inactive state if an amount of data in the socket receive buffer is not equal to or greater than the bulk read size.

39. (Currently Amended): The computer program product of claim 29, further comprising ~~fourth~~ instructions for placing the bulk read function in an inactive state if an amount of data in the socket receive buffer is not equal to or greater than the bulk read size.